

ABSTRACT OF THE DISCLOSURE

A laser beam is applied from a laser unit to a sample, and a fluorescent signal from the sample is converted into an electric signal by a photoelectric converter. Further, a laser oscillation synchronous signal generating circuit generates a laser oscillation synchronous signal that is synchronous with a laser oscillation signal output from the laser unit. The laser oscillation synchronous signal generated by the laser oscillation synchronous signal generating circuit is delayed, by a delay circuit, by an optimal amount determined in light of the attenuation characteristic of fluorescence emitted from the to-be-observed sample. This delayed signal is applied as a sampling signal to an A/D converter. The A/D converter samples the electric signal from the photoelectric converter in synchronism with the sampling signal. As a result, each peak of the fluorescent signal can be sampled.

5

10

15